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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/819,782	03/28/2001	Thomas Michael Gooding	ROC920010003US1	2615

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EXAMINER

NGUYEN, VAN H

ART UNIT

PAPER NUMBER

2126

DATE MAILED: 09/26/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/819,782

Applicant(s)

GOODING, THOMAS MICHAEL

Examiner

VAN H NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. This Office Action is in response to the application filed March 28, 2001. Claims 1-46 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-9, 12-19, 22, 24-26, 28-32, 35-42 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by **Brandle et al** (U.S. 5,218,699) - cited by Applicant in the IDS (paper # 2).

As to claim 1, Brandle teaches a method for executing location independent procedure calls in a network system (*making procedure calls can be used with a network of computers; Abstract/allows applications programs to make calls...can be located on remote machines connected to a local machine by a network; col.2, lines 20-45*), comprising:

- determining a remote node to execute a function, if the function cannot be run on a local node (*The library procedure can be available on the local node or a remote node...If*

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the library procedure is available on a remote node; Abstract/Requests for library procedures are checked to see if the desired procedure is available locally or on a remote machine; col.2, lines 20-45/The service director 102 searches its service tables and locates the entry for the requested service. For services which are defined as remote services, this fact is identified in the service tables 152; col.8, lines 47-68);

- executing a route function (a remote router procedure communicates a procedure identifier to the remote node; Abstract/The service director 102 invokes a remote router service 106 with a procedure call 108; col.7, lines 14-20/The service director 102 then invokes the remote router service 154; col.8, lines 47-68);

- transmitting the function and related data to the remote node (The data mapper 112 readies the service identifier and parameters for transmission over the network 156; col.8, lines 47-68/ The data, which includes the service procedure to be invoked and all necessary parameters, is then sent over the network 160, and received by the remote router application procedure 162; col. 9, lines 1-30);

- executing the function on the remote node (The procedure is executed; Abstract/ Procedures which are available on remote machines are invoked; col. 2, lines 20-45/ At the remote node... the service director 122 calls the appropriate service procedure 170, which executes in the normal manner 172; col.9, lines 9-30);

- transmitting the results of the function to the local node (any results are returned to the local node, to be returned to the application program; Abstract/ Results are returned to the local machine for use by the applications program; col. 2, lines 20-45/ Upon completion, the selected service procedure 126 returns its results to the service director 174, which in turn returns its

results to the remote router application 176... The data mapper 120 then readies the results for communication over the network 178... Service director 102 then in turn returns these results to the application 190; col.9, lines 9-30).

As to claim 2, Brandle teaches executing a route function further comprises: generating a parameter representative of the function related data; and packaging the function related data and the generated parameter for transmission to the remote node (col.8, line 47- col.9, line 30).

As to claim 3, Brandle teaches the parameter representative of the function related data further comprises a text string, wherein each character in the text string corresponds to a particular data type (col.4, line 53- col.5, line 34).

As to claim 5, Brandle teaches determining a remote node to execute a function further comprises reading a parameter associated with the function, wherein the parameter associated with the function indicates where the function may be executed (col.4, line 53- col.5, line 34).

As to claim 6, Brandle teaches packaging the function related data and the generated parameter further comprises flattening each variable argument indicated in the route function into a buffer (col.5, lines 9-68).

As to claim 7, Brandle teaches executing the function on the remote node further comprises: receiving the function and related data on the remote node; unpackaging the function related data on the remote node; computing the function on the remote node; and packaging a function reply (col.8, lines 29-68).

As to claim 8, Brandle teaches packaging a function reply further comprises flattening the reply (col.8, lines 29-68).

As to claim 9, Brandle teaches unpackaging the function related data further

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comprises unflattening the function related data (col.8, lines 47-68).

As to claim 12, the rejection of claim 1 above is incorporated herein in full. However, claim 1 recites “transmitting the function related data from the local node to the remote node.”

Brandle teaches transmitting the function related data from the local node to the remote node (*Only that information actually utilized at the remote node is transferred*; col.8, lines 57-68).

As to claim 13, Brandle teaches determining a remote node further comprises reading a parameter associated with the function, wherein the parameter indicates the remote node for execution of the function (col.8, lines 47-68).

As to claim 14, Brandle teaches calling a route function further comprises: generating a text string, wherein each element of the text string identifies the data type of a portion of the function related data; and bundling the function related data (col.8, line 29-col.9, line 30).

As to claim 15, Brandle teaches the text string further comprises a DTSTRUCT string. (col.8, line 29-col.9, line 30).

As to claim 16, Brandle teaches bundling further comprises flattening the function related data. (col.8, lines 47-68).

As to claim 17, Brandle teaches executing the function on the remote node further comprises: unbundling the function related data; computing the function; and bundling the reply to the function (col.8, line 29-col.9, line 30).

As to claim 18, Brandle teaches unbundling and bundling further comprise unflattening and flattening, respectively (col.8, line 29-col.9, line 30).

As to claim 19, Brandle teaches looking up a function pointer that indicates the location of the function to the remote node. (col.4, lines 27-52).

As to claim 22, Brandle teaches transmitting the results of the function to the remote node further comprises unflattening the results (col.9, lines 1-30).

Claims 24-26 and 28-32 are directed to a computer readable medium for implementing the method of claims 1-3 and 5-9, and are similarly rejected under the same rationale.

Claims 35-42 and 45 are directed to a computer readable medium for implementing the method of claim 12-19 and 22, and are similarly rejected under the same rationale.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 10-11, 20-21, 23, 27, 33-34, 43-44, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Brandle et al** (U.S.5,339,417) in view of **Wrabetz et al**. (U.S.5,442,791).

As to claim 4, Brandle does not explicitly teach determining if the packaged function related data is cacheable; determining if the packaged function related data is available in cache memory if it is determined to be cacheable; and retrieving a cached reply from the cache memory

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of the packaged function related data is determined to be cacheable and available in cache memory.

Wrabetz teaches determining if the packaged function related data is cacheable; determining if the packaged function related data is available in cache memory if it is determined to be cacheable; and retrieving a cached reply from the cache memory of the packaged function related data is determined to be cacheable and available in cache memory (col.19, lines 30-68).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Wrabetz with Brandle because it would have provided the capability for dramatically improving the performance of the system, because cache memory is always faster than main RAM memory.

As to claim 10, Brandle teaches receiving the transmitted results of the function on the local node (Abstract and col. 2, lines 20-45).

Brandle, however, does not explicitly teach determining if the transmitted results are cacheable; and storing the transmitted results in a cache memory if the transmitted results are determined to be cacheable.

Wrabetz teaches determining if the transmitted results are cacheable; and storing the transmitted results in a cache memory if the transmitted results are determined to be cacheable (col.19, lines 30-68).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Wrabetz with Brandle because it would have provided the capability for dramatically improving the performance of the system, because cache memory is always faster than main RAM memory.

As to claim 11, Brandle does not explicitly teach queuing at least one of pre-flattened commands and flattened commands prior to transmission to a remote node; and cooperatively executing the queued commands in a single network transaction.

Wrabetz teaches queuing at least one of pre-flattened commands and flattened commands prior to transmission to a remote node; and cooperatively executing the queued commands in a single network transaction (col.23, lines 15-48).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Wrabetz with Brandle because it would have provided the capability for lining up commands in a particular order before transmitting them to a remote computer for execution.

As to claim 20, Brandle does not explicitly teach determining if the function related data is cacheable and storing the function related data in cache memory if the function related data is determined to be cacheable.

Wrabetz teaches determining if the function related data is cacheable and storing the function related data in cache memory if the function related data is determined to be cacheable (col.19, lines 30-68).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Wrabetz with Brandle because it would have provided the capability for dramatically improving the performance of the system, because cache memory is always faster than main RAM memory.

As to claims 21 and 23, note the rejections of claims 10 and 11 supra.

As to claim 27, note the rejection of claim 4 supra.

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As to claims 33-34, note the rejections of claims 10-11 *supra*.

As to claims 43-44, and 46, note the rejections of claims 20-21, and 23 *supra*.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Radia	US 6418484	issued date: 07/2002
- Gochee	US 5953514	issued date: 09/1999
- Truong	US 5898835	issued date: 04/1999
- Suzuki et al.	US 5918015	issued date: 06/1999
- Watanabe et al.	US 5918011	issued date: 06/1999
- Hodgkinson et al.	US 4274139	issued date: 06/1981

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H NGUYEN whose telephone number is (703) 306-5971. The examiner can normally be reached on Monday-Thursday from 8:30AM - 6:00PM. The examiner can also be reached on alternative Friday.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9000.

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Any response to this action should be mailed to:

Commissioner for Patents

PO Box 1450

Alexandria, VA 22313-1450

or fax to:

(703) 746-7239 (for formal communications intended for entry)

(703) 746-7238 (for After Final communications)

(703) 746-7240 (for informal or draft communications)

VHN

09/17/ 2003

A handwritten signature in black ink, appearing to be 'pe' or similar, located below the date.